No.



7800066

THE UNITED STATES OF AMERICAL

TO MIL TO WHOM THESE; PRESENTS SHALL COME:
Musser Seed Co., Inc.

Telhereas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF SEVENTEEN YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC EED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXPORTING IT, OR SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, PORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT \$42, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SQUASH

'Black Magic'

In Testimony Watercot, I have hereunto set my hand and caused the seal of the Blant Variety Protection Office to be affixed at the City of Washington this 27th day of November in the year of our Lord one thousand nine hundred and seventy-nine

Allost:

Commissioner

Plant Variety Protection Office

Grain Division

Agricultural Marketing Service

UNITED STATES DEPARTMENT	NT OF AGRICULTUR	=		CORM ARROWS		
UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK POULTERY GRAND & SEED DIVISION			FORM APPROVED OMB NO. 40-R3822			
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE INSTRUCTIONS: See Reverse,			No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).			
1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAM	e pis		AL USE ONLY		
77-2169	BLACK MAGIC 8/6/19		7800066			
2. KIND NAME	3. GENUS AND SPE	CIES NAME	FILING DATE 5-11-78	10:30 A.M.		
Squash	Curcurbita	Pep o	FEE RECEIVED	DATE		
4. FAMILY NAME (BOTANICAL)	5. DATE OF DETERMINATION		\$ <u>500.00</u>	5-11-78		
Cucurbitaceae	1977		\$ 250.00	9-11-79		
6. NAME OF APPLICANT(S)		t and No. or R.F.D. No.,	City, State, and ZIP	8. TELEPHONE AREA		
Charter Research, Inc.	P.O. Box YY Twin Falls, Idaho		83301	1-802-734-7100		
9. IF THE NAMED APPLICANT IS NOT A PE ORGANIZATION: (Corporation, partnersh		10. IF INCORPORAT DATE OF INCOR	ED, GIVE STATE AND PORATION	11. DATE OF INCOR- PORATION		
Corporation		Idaho Ap:	ri1, 1974	April, 1974		
12. NAME AND MAILING ADDRESS OF APP ALL PAPERS:	LICANT REPRESENT	ATIVE(S), IF ANY, TO	SERVE IN THIS APPLIC	ATION AND RECEIVE		
Dr. Paul H. Yor	ty	0 D 7777/III	Talla Taba 0	2201		
c/o Charter Res	earch, Inc. /P.	0. Box 11/1W111 P.O. Box 1406	TWIN FALLS, IT)AHA 83361		
13. CHECK BOX BELOW FOR EACH ATTACH	MENT SUBMITTED:		1000 1000	7,7,0		
X 13A. Exhibit A, Origin and Bree	eding History of the	Variety (See Section .	52 of the Plant Variety	Protection Act.)		
X 13B. Exhibit B, Novelty Statem	I 13B. Exhibit B, Novelty Statement.					
🗵 13C. Exhibit C, Objective Descr	iption of the Variet	y (Request form from	Plant Variety Protect	ion Office.)		
13D. Exhibit D, Additional Description of the Variety.						
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED? (See Section 83(a). (If "Yes," answer			RIETY NAME ONLY AS	A CLASS OF CERTIFIED		
14b. DOES THE APPLICANT(S) SPECIFY THA LIMITED AS TO NUMBER OF GENERAT			B, HOW MANY GENERATIONS OF PRODUC- BREEDER SEED?			
YES X NO		FOUNDATION	REGISTERED	CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROT name of countries and dates.)	ECTION OF THIS VA	RIETY IN OTHER COU	NTRIES? YES	NO (If "Yes," give		
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? YES NO (If "Yes," give name of countries and dates.)						
,		·				
			V			
16. DOES THE APPLICANT(S) AGREE TO TH JOURNAL?	E PUBLICATION OF NO	HIS/HER (THEIR) NAM	E(S) AND ADDRESS IN	THE OFFICIAL		
17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.						
The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.						
Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.						
5-30-78 Taul V. Yorty (DATE) (SIGNATURE OF APPLICANT)						
(DATE) (SIGNATURE OF AFFILICANT)						

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

RECEIVE

AMS, GRAIN DIV.

PVPO

1978

JUN 5

图 93

ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties:

 (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

7800066

EXHIBIT A -- Origin and Breeding History of the Variety

This variety was developed by inbreeding and selecting Blackjack F_1 up to, and including the F7 generation. The F2 seed was obtained from the Spring 1974 greenhouse for field planting. Approximately 100 plants were selfed in the field in 1974 by hand-pollination using procedures which eliminated contamination by bees and insects. Five of the best selections were field planted in 1975 for further selection. Several of these 1975 field selections were planted in our research greenhouse in the Fall of 1975. Their progeny were planted in the Spring 1976 greenhouse, thereby providing 2 generations of further inbreeding and limited selection beyond the field selections. Approximately 25 plants of each of 6 selected lines were field planted in 1976 and again selfed for further selection. In 1977, approximately 100 plants from each of the 3 best 1976 field selections were field planted for seed increases. experimental line #77-2169 was selected as the basis of this new variety since its fruit shape was slightly superior to the other 2 lines. Plants of this line were very uniform with only a slight variation in fruit straightness. Although this slight fruit shape variation was considered normal environmental variation, only seed of the best plants was bulked. This breeder seed will be further increased by open-' 17-2169' WAS NAMED BLACK MACIC! pollination in an isolated seed field. Ry5 8/6/19

P.O. BOX YY TWIN FALLS, IDAHO 83301 U.S.A. TELEPHONE 208-734-7100 TWX-910-977-5923

Seedsmen

May 30, 1978

EXHIBIT A - Evidence of uniformity & stability of (77-2169) DEACK MACIE 1

in addition to that information previously provided.

No off-types were found in the 1977 field increase of 52 selfed, hand-pollinated plants, either for plant or fruit characteristics.

No attempt was made to eliminate plant off types during the thinning operation and none were ever found.

In addition, 62 plants were grown from 3 selfed progenies of BLACK MARIC'
'77-2169' (see diagram below) and all plants were very uniform both within and between these progenies when grown under winter greenhouse conditions which are not conducive to uniform growth. The slightly earlier flowering of progeny 78-2010 could be due either to sample variation, a possibly warmer location within the greenhouse, or both.

		BLACK MAEIC PJS 8/6/19	
	Progeny 78-2008	Progeny Progeny 78-2010	
No. of plants	24	24 14	
Ave. male flowering date	2-18-78	2-18-78 2-16-78	
Ave. female flowering date	2-21-78	2-21-78 2-19-78	
Plant Uniformity	excellent	excellent excellen	ıt
Fruit Uniformity	excellent	excellent excellen	t

Sincerely,

CHARTER RESEARCH, INC.

Paul H. Yorty

A BETTER WAY TO GROW THROUGH RESEARCH

EXHIBIT B -- Novelty Statement

This variety is most similar to Blackjack F_1 . The major genetic difference is that this variety is open pollinated whereas Blackjack is a hybrid. The compact plants of this variety are approximately 15 - 20 cm shorter and 15 - 20 cm narrower than Blackjack F_1 and smaller than most other Zucchinis. Third, fruits have a more uniform, cylindrical shape with less prominent ribs (barely visible) than Blackjack. Fourth, yield is higher than most Zucchini hybrids -- even though plants are smaller. Comparative marketable fruit yields are indicated below:

#77-2169 (Black Made') 3.18 kg ave. per plant

Aristocrat F₁ 2.86 kg " " "

Diplomat F₁ 3.04 kg " " "

EXHIBIT D -- Additional Description of the Variety BLACK MAGIC' PAS 8/6/19

The small sturdy plants of this variety have an open growth habit with short spines. This nearly spineless plant character greatly reduces personal injury during harvest, speeds harvest and also reduces fruit injury during growth and harvest. The smooth glossy fruits are uniform, very straight and cylindrical but skin rather easily due to their tenderness. The small seed cavity and small seed size may reduce the number of harvests needed since quality of larger fruits is still acceptable. The easy fruit separation from the plants prevents fruit breakage, speeds harvesting and ultimately increases the yield. Maturity date is very similar to its parent as well as recent hybrids.

FORM GR-470-20 (12-16-74)

Color:

1 = WHITE

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE

GRICULTURAL MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782 EXHIBIT C (Pumpkin/ Squash/Gourd)

OBJECTIVE DESCRIPTION OF VARIETY PUMPKIN/SQUASH/GOURD (CUCURBITA SPR.)

NAME OF APPLICANT(S)	VARIETY NAME OR TEMPORARY				
CHARTER RESEARCH, INC.	DESIGNATION (BLACK MARIC!)				
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	77-2169 (BLACK MAGIC')				
P. O. Box YY Twin Falls, Idaho 83301	FOR OFFICIAL USE ONLY				
IWIII Falls, Idailo ODOL	7800066				
Place the appropriate number that describes the varietal charact Place a zero in first box (${}^{e} \cdot {}^{e} \cdot$	er of this variety in the boxes below.				
1. SPECIES:					
5 1 = LAGENARIA 2 = MAXIMA 3 = MIXTA 4 =	MOSCHATA 5 = PEPO 6 = OTHER (Specify)				
2. KIND (According to use):	3. TYPE:				
2 1 = PUMPKIN 2 = SQUASH 3 = GOURD	1 = SUMMER (Vegetable Marrow) 2 = WINTER (Boston Marrow)				
4. COTYLEDON:					
0 6 4 MM. LONG 0 3 6 MM. W	IDE				
2 Apex: 1 = TAPERED 2 = ROUNDED 3 = NOTCHED	Veining: 1 = OBSCURE 2 = PLAINLY VISIBLE 3 = PROMINENT				
1 = LIGHT GREEN 2 = GRAY-GREEN 3 = MEDIUM G	REEN 4 = DARK GREEN				
5. PLANT:					
1 = BUSH 2 = SEMI-BUSH 3 = LONG VINES	1 = PILOSE 2 = PRICKLY 3 = GLABROUS				
6. MAIN STEM:					
1 = ROUND 2 = ANGLED 0 2 2 MM, DIAMETER AT MID- POINT OF FIRST INTERNODE 0 0 2 CM, AVERAGE LENGTH					
3 6 AVERAGE NUMBER OF INTERNODES					
7. LEAVES:					
O Shape: 1 = OVATE 2 = ORBICULAR 3 = RENIFORM 4 = RETUSE	3 Shape: 1 = NOT LOBED 2 = SHALLOW LOBED 3 = DEEP LOBED				
Margin: 1 = ENTIRE 2 = DENTICULATE 3 = DENTATE AT 3RD INTERNOTE - 25 Phint FUERNOE	2 Margin: 1 = FLAT 2 = FRILLED				
2 6 cm. wide 1 9 cm. Long	1 Surface: 1 = SMOOTH 2 = BLISTERED				
2 Dorsal Surface:					
3 Ventral Surface: 1 = GLABROUS 2 = SOFT HAIRY	3 = BRISTLED				
1 = LIGHT GREEN 2 = GRAY-GREEN 3 = MEDIUM GREEN 4 = DARK GREEN	2 1 = NOT BLOTCHED 2 = BLOTCHED WITH GRAY				
3 7 CM. PETIOLE LENGTH					
8a. FLOWER - Pistillate:					
1 1 CM. DIAMETER 1 = DRUM-LIKE 3 = FUSIFORM 2 Pedicel: CM. LENGTH					
2 Margin: 1 = STRAIGHT 2 = CURVED 1 = PLAIN 2 = FRILLED	O 1 Sepals: MM. WIDTH O 2 Sepals: MM. LENGTH				

2 = LEMON YELLOW 3 = MID-YELLOW

4 = DEEP YELLOW

5 = ORANGE

11. FLESH

O 5 Thickness: MM BLOSSOM END

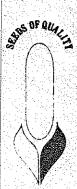
8 Thickness: MM MEDIAL

6 Thickness: MM STEM

FORM GR 470-20 (Page 3 of 4)		780	0066			
1 = FINE 2 = 4 = STRINGY	GRANULAR 3 = LUMPY	2 Texture: 1 = SOFT 2 =	FIRM 3=BRITTLE			
2 Texture: 1 = DRY 2 =	MOIST 3 = JUICY	2 Flavor: 1 = INSIPID 2 =	SLIGHTLY SWEET 3 = SWEET			
Quality: 1 = INEDIBLE	2 = GOOD 3 = EXCELLENT	0 2 0 7 Color: (Choo	ose from rind colors above)			
12. SEED CAVITY: (Sectioned apex to base)						
1 4 CM LENGTH		2.3 CM WIDTH				
1 = CONFORMS T Location: 2 = NEAR APEX 3 = APEX ONLY	O FRUIT SHAPE 3 Placental Ti	1 = SPARSE ssue: 2 = MODERATELY ABUNDANT 3 = ABUNDANT	Center Core: 1 = INCONSPICUOUS 2 = PROMINANT			
13. FRUIT STALKS	r					
2.5 CM LENGTH		3.0 CM DIAMETER				
1 = ROUND 2 = IRREG	ULAR 1 = NOT TWISTED 2 = TWISTED	2 1 = NOT TAPERED 2 = TAPERED	1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED			
3 Texture: 1 = SOFT 2	SPONGY 3 = HARD	3 Farrows: 1 = NONE 2 =	SHALLOW 3 = DEEP			
2 Surface: 1 = SMOOTH 2	= ROUGH 3 = SPINY	2 Attachment End: 2 = SLIGHT 3 = EXPAN	LY EXPANDED			
2 Detaches: 1 = EASILY	2 = WITH DIFFICULTY	3 Color: 1 = LIGHT GREEN 3 = DARK GREEN	2 = MEDIUM GREEN			
14. SEEDS						
1 5 MM LENGTH	0 9 MM W	пртн	0 3 MM THICKNESS			
1 = SMOOTH 3 = SLIGHTLY 5 = CREASED	2 = WRINKLED Y PITTED 4 = SCALY	2 Color: 1 = WHITE 2 = CR	EAM 3 = BUFF 4 = BROWN			
Luster: 1 = DULL	2 = GLOSSY	2 Margin: 1 = STRAIGHT 2 =	CURVED 3 = TWISTED			
2 Margin: 1 = ROUNDED 2	: = WEDGE-LIKE					
2 Separation from pulp: 1 = EA 3 = DI	ASY 2 = MODERATELY EASY IFFICULT	15 GMS PER 100 SEEDS				
1 7 5 NO. SEEDS PER FRUIT						
15. DISEASE RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)						
O POWDERY MILDEW O CUCUMBER MOSAIC O SQUASH MOSAIC						
O WATERMELON MOSAIC OTHER (Specify)						
16. INSECT RESISTANCE: (O = Not Tested, 1 = Susceptible, 2 = Resistant						
O SQUASH BORER OTHER (Speicfy)						
17. INDICATE A VARIETY MOST CLOSELY RESEMBLING THAT SUBMITTED FOR EACH CHARACTER						
CHARACTER	VARIETY	CHARACTER	VARIETY			
PLANT HABIT	Seneca Gourmet F ₁	FRUIT SHAPE	Blackjack F ₁			
LEAF TYPE	Blackjack F ₁	FRUIT COLOR	11			
FLOWER TYPE		CULINARY TYPE				

REFERENCES

- 1. Currence, T. M. 1954. Vegetable Crops Breeding, Department of Horticulture, University of Minnesota.
- 2. Tapley, W.T., Enzie, W.D. and Van Eseltine, G. P., 1937. Vegetables of New York: The Cucurbits 1 (4). J.B. Lyon Company, Albancy, New York.
- 3. USDA Farmess Bulletin No. 1086. 1969. Growing Pumpkins and Squashes.
- 4. Whitaker, T.W. and G.N. Davies. Cucurbits. Interscience Publications, Inc., New York, N.Y.



MUSSER SEED COMPANY, Inc. TWIN FALLS, IDAHO. P. O. BOX. 351 SOUTH PARK AVENUE WEST 83301

P. O. BOX 1406

SANTA MARIA, CALIF. P. O. BOX 527 706 SOUTH OAKLEY AVENUE 93454

[805] 925-4941

(208) 734-2377

August 10, 1979

Mr. Robert Snyder UNITED STATES DEPT. OF AGRICULTURE Agricultural Marketing Service Beltsville, Maryland 20705

Dear Mr. Snyder:

Subject: Squash Application No. 7800066, '77-2169'

This letter is in reply to your question concerning rind color under item 10 of Exhibit C.

On nearly mature or mature fruits (4-7 weeks old) the lace pattern and ground colors are both black-green and not distinguishable except on the ground spot (where fruit lays on soil). There the lace pattern is medium green and the ground color is greenish yellow.

On prime size fruits for market (6-8" long), the lace pattern is black-green and the ground color is dark green. The lace pattern is very fine and dense over the entire fruit so that the darkgreen ground color on the dorsal side is barely distinguishable from the lace pattern. On the ventral side, the ground spot (where the fruit firmly touches the soil) has a medium green lace pattern and the ground color is yellowish green.

I believe that you were previously informed that this variety has been named "Black Magic".

In case you need fruit samples, these should be available until mid-September.

My new address is as follows: Dr. Paul H. Yorty % MUSSER SEED CO. INC. P.O. Box 1406 Twin Falls, Idaho 83301

Charter Research has consolidated with Musser Seed Co. as of 7/1/79.

Sincerely,

PAUL YORTY Research Geneticist Musser Seed Co., Inc.